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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,709	09/19/2003	Hiroki Kanai	16869K-095200US	1998

20350 7590 12/21/2005

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EXAMINER

WALTER, CRAIG E

ART UNIT PAPER NUMBER

2188

DATE MAILED: 12/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/666,709

Applicant(s)

KANAI ET AL.

Examiner

Craig E. Walter

Art Unit

2188

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-22 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-4, drawn to an apparatus comprising at least one cache memory and a plurality of control units used to mutually store data in the cache memories, classified in class 711, subclass 118.
 - II. Claims 5-7, 11-13, and 17-19, drawn to a method (control unit and medium) of reading data from, and writing data to a cache memory which is further capable of receiving and transmitting an acknowledgment signal, classified in class 711, subclass 118.
 - III. Claims 8-9, 14-15 and 20-21, drawn to a method (control unit and medium) of selecting data to be written out of a cache, and securing a storage area to write the selected to the cache, classified in class 711, subclasses 118 and 136.
 - IV. Claims 10, 16 and 22, drawn to an apparatus and medium, which varies the power supplied to a control unit after access to a cache memory is complete, classified in 711/118 (with mandatory search in 713/300).
2. The inventions are distinct, each from the other because of the following reasons:
3. Inventions I, II and III and IV are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate

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utility from invention II, such as a system capable of mutually storing data among multiple cache units. Additionally, invention I has separate utility from invention III, such as a system capable of mutually storing data among multiple cache units. Likewise, invention I has separate utility from invention IV, such as a system capable of mutually storing data among multiple cache units. Invention II has separate utility from invention III, such as a system capable of using transmitting an acknowledgment once data has been written out of a cache. Additionally, invention II has separate utility from invention IV, such as a system capable of using transmitting an acknowledgment once data has been written out of a cache. Finally, invention IV has separate utility from invention III, such as system, which is capable of minimizing power consumption by powering down after access to a cache memory is complete. See MPEP § 806.05(d).

4. These inventions are distinct for the reasons given above and the search required for invention I is not required for either of the remaining three inventions (invention II, invention III or invention IV). Likewise the search for each of the remaining three groups diverges from the search required for each of the respective remaining groups, therefore restriction for examination purposes as indicated is proper.

Remarks

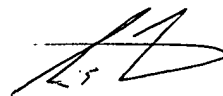
5. Examiner made an attempt to allow Applicant (Robert Colwell) the opportunity to elect one of the four groups on 2 December 2005, however Mr. Colwell declined election, and requested a written restriction requirement.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig E. Walter whose telephone number is (571) 272-8154. The examiner can normally be reached on 8:30a - 5:00p M-F.

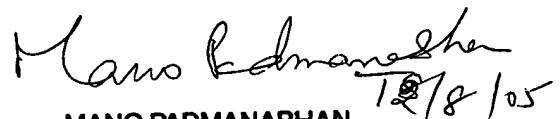
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on (571) 272-4210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Craig E Walter
Examiner
Art Unit 2188

CEW



MANO PADMANABHAN
SUPERVISORY PATENT EXAMINER